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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,137	02/22/2002	Takeshi Takezawa	112007	1665

7590 03/10/2004  
Oliff & Berridge  
PO Box 19928  
Alexandria, VA 22320

EXAMINER

SEVER, ANDREW T

ART UNIT PAPER NUMBER

2851

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/069,137

Applicant(s)

TAKEZAWA ET AL.

Examiner

Andrew T Sever

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10,11 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10,11 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Allowable Subject Matter***

2. The indicated allowability of claims 10 and 11 are withdrawn in view of the reference to Mitsutake et al. (US 5,566,367). Rejections based on the newly cited reference(s) follow.

3. The indicated allowability of claim 16 is withdrawn in view of the newly discovered reference(s) to Fujimori et al. (US 6,536,906) in view of the Smoky Quartz Crystal article. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitsutake et al. (US 5,566,367.)

Mitsutake teaches in figure 11 a projector comprising:

An illumination optical system for emitting a light (61, 62, 63, 64, and 40);

An electro-optical device for modulating the light emitted from the illumination optical system in response to image information (66); and

A projection optical system for projecting a modulated light generated by the electro-optical device (68),

Wherein the illumination optical system comprises a polarized light generation section (40) for emitting a predetermined polarized light (see figures 9 and 2 for more detail) ,

The polarized light generation section comprising:

An optical component for dividing an incident light into two different polarized lights (20); and

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A selective retardation plate for adjusting one of the two polarized lights output from the optical component to the other (23<sub>1</sub> and 23<sub>2</sub>),

The optical component comprising:

A plurality of rock crystal members composed of rock crystal and arrayed in a predetermined direction (Mitsutake teaches in column 5 lines 40-51 that the quarter wave plates (23<sub>1</sub> and 23<sub>2</sub>) are made of rock crystal in one embodiment); and

A polarization separation film (24<sub>1</sub> and 24<sub>2</sub>) and a reflection film (25<sub>1</sub> and 25<sub>2</sub>) that are alternately arranged on interfaces of the plurality of rock crystal members (23<sub>1</sub> and 23<sub>2</sub>).

With regards to applicant's claim 11 see the rejection of claim 10 (claim 11 reads on a single beam splitter while 10 reads on an array of beamsplitter, which would include a single beamsplitter. As described above Mitsutake teaches the array and therefore also teaches the single beamsplitter as claimed in applicant's claim 11.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claim 16 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,536,906. Although the conflicting claims are not identical, they are not patentably distinct from each other because

The '906 patent claims a X-shaped recombination prism which is made of quartz, although in the present application's claim 16 it is claimed to be made of rock crystal, those with ordinary skill in the art at the time the invention was made, would recognize that optical quality quartz is in fact rock crystal. (See The Smoky Quartz Crystal article provided by the applicant, which defines rock crystal as transparent and colorless quartz. Given that any other kind of quartz would not be useful as a recombination prism as quartz with color or imperfections would degrade the image light, one with ordinary skill in the art would expect that quartz claimed in claim 13 of the '906 patent is rock crystal.)

***Response to Arguments***

8. Applicant's arguments with respect to claims 10, 11, and 16 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2004/0032569 to Takezawa et al. claims in claim 28 the use of Rock crystal in supports.

Applicant should review this claim and the claims it is dependent on when amending the present application to insure that there are no double patenting issues.

US 4,763,996 to Hara et al. teaches in column 11 lines 60-66 making a half-wave plate of quartz crystal.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell Adams can be reached on 571-272-2112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

  
RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800